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BEFORE THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

ONE HUNDRED SIXTEENTH CONGRESS

FIRST SESSION

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THE ECONOMIC OUTLOOK

WEDNESDAY, NOVEMBER 13, 2019

UNITED STATES CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to notice, at 11:05 a.m., before the Joint Economic Committee, Mike Lee, Chairman, presiding.

Representatives present: Maloney, Marchant, Beatty, Schweikert, Frankel, Trone, Herrera Beutler, and Beyer.

Senators present: Lee, Klobuchar, Cotton, Hassan, Heinrich, Cruz, Portman, Cassidy, and Peters.

Staff present: Melanie Ackerman, Robert Bellafiore, Alan Cole, Harry Gural, Owen Haaga, Amalia Halikias, Sema Hasan, Colleen Healy, Ziyuan Huang, Christina King, Kyle Moore, Michael Pearson, Hope Sheils, Kyle Treasure, Scott Winship, Jim Whitney, and Randy Woods.

OPENING STATEMENT OF HON. CAROLYN B. MALONEY, VICE CHAIR, A U.S. REPRESENTATIVE FROM NEW YORK

Vice Chair Maloney. The meeting will be called to order. The Chairman is on his way. He has asked me to gavel in and begin my opening statement, and then hopefully he will be here.

We are very, very honored to have Chairman Powell. We thank him so much for testifying today. I look forward to hearing your perspective on the current state of the economy, and the potential challenges ahead.

I would also like to thank you for your thoughtfulness as you help steer the economy through what in some ways are extremely challenging times.

As you have said in your testimony, by some measures our economy is strong. The national unemployment rate fell from 10 percent at its peak during the Great Recession to only 4.7 percent when President Trump took office. And it has continued to fall. It now stands at only 3.6 percent.

The economy has continued to add jobs now for 109 consecutive months, more than nine years. Inflation remains low, below the Fed's target. Wages are moving up, though not as fast as we would like. But it is weak in other ways. Other measures tell a very different story.

GDP growth has slowed, falling below 2 percent in the third quarter. Job growth is also slowing. In fact, it has lagged behind the last years of the Obama administration. About 35,000 fewer jobs have been added per month during the first 33 months of Trump than the last 33 months of Obama.

Manufacturing is in recession. Business investments have been shrinking for the past two quarters. And productivity fell last quarter for the first time since 2015. Some of these more troubling developments may be a sign of a possible end to our decade-long economic expansion, or a slow fade from the sugar high of the 2017 tax cuts.

But the most likely cause of economic uncertainty is the President's trade war. This leads to a fundamental question: How should the Federal Reserve act when one of the major challenges facing our economy is the erratic behavior of our President?

So I will not ask you to answer that question, but it is on everyone's mind. You have an extremely difficult job.

Not everyone has benefited from this economy. In past months, you have conducted a Federal Reserve listening tour called "Fed Listens." And I want to thank you for taking the time to hear from Americans from all walks of life who experience our economy very differently.

As you know, the economy as a whole can be very strong, while entire segments of the U.S. population struggle. Some regions still have not recovered from the Great Recession. Not all demographic groups have shared equally in the economic growth of the past decade.

As Members of Congress, we need to serve all Americans. You have shown that this is your concern, too. It used to be that a rising tide lifts all boats, but that has become less true and we know that the tide lifts some boats much more than others.

That is why I have introduced legislation that would give us insight into whom the economy is working for. My bill, with a lot of my colleagues, the Measuring Real Income Growth Act, would require the Bureau of Economic Analysis to report GDP growth by income, and the top one percent alongside the top line number. It would tell us who is benefiting from economic growth.

And that takes me back to the fundamental question before Fed policymakers: How low should unemployment go? How does the Fed weigh the benefits of very low unemployment vs. the risk of inflation?

We have had 11 straight quarters of an unemployment rate below what CBO tells us is the so-called "natural rate" of unemployment. Yet inflation remains comfortably below the Fed target rate, which raises the question: Has the traditional relationship between unemployment and inflation weakened?

If it has, then why? Is it downward price pressure from around the globe? Or increased market concentration in certain industries in the United States eroding worker bargaining power? Or are there other factors in play? And what if unemployment is extremely low suggesting that we are at full employment?

But the unemployment rate for African Americans or Latinos remains much higher. What if the unemployment rate for people in some communities or those who work in some occupations is stubbornly high?

These are questions with wide-ranging implications for both fiscal and monetary policy. I look forward to your testimony, and I yield back, and our Chairman is here.

[The prepared statement of Vice Chair Maloney appears in the Submissions for the Record on page 30.]

OPENING STATEMENT OF HON. MIKE LEE, CHAIRMAN, A U.S. SENATOR FROM UTAH

Chairman Lee. Thank you very much for being here, Chairman Powell, and I appreciate your patience with our schedule. Votes in committee and on the floor are often difficult to predict, but welcome to the Joint Economic Committee's annual hearing with the Chair of the Federal Reserve's Board of Governors.

Chairman Powell, I would like to extend you a warm welcome and I look forward to our discussion today.

Our economy has finally recovered from the financial crisis of 2008. Unemployment has reached a 50-year low of 3.5 percent. It reached that in September, and most recently stood at 3.6 percent.

The share of working-age adults with a job has returned, mercifully, to pre-crisis levels. However, despite this welcome return to normalcy within our economy, and in terms of employment measures, many aspects of our economy remain unusual, and particularly so for central bankers.

Inflation remains persistently low. In four of the past five quarters, inflation has been below the Federal Reserve's two percent target. Treasury Yields also remain low, with a 10-year borrowing rate of just 1.9 percent.

Interest rates that were once considered extraordinarily low have become a long-run expectation. These phenomena of low inflation and low long-term interest rates are not unique to the United States, but rather they are echoed in most of the developed markets around the world today.

This moment brings with it some challenges, such as building a framework for fighting recessions in a low-interest-rate environment. However, it also brings some significant opportunities.

With inflation still in check, we may have yet room to expand employment even further. As ever, it will be important for the Federal Reserve Board to communicate how it addresses these challenges and these opportunities. In this regard, a greater transparency demonstrated by the Federal Reserve during your chairmanship, Mr. Chairman, is to be commended.

In particular, the Fed has conducted a number of Fed Listens events around the country, including a historic conference held in June to hear feedback on current policy conduct as well as to better understand the effects of monetary policy at the local level.

Not only will these initiatives promote trust in the Federal Reserve and in its decision-making, it will provide important information relevant to monetary policy from Americans who do not always get a seat at that table and in the past have not been able to understand how these things operate as well as they are able to today.

I will now introduce our witness. Mr. Powell is the 16th and current Chairman of the Board of Governors of the Federal Reserve System, serving in that role since 2018. He first joined the Board of Governors in 2012. Prior to his appointment to the Board, Mr. Powell was a visiting scholar at the Bipartisan Policy Center where he focused on Federal and state fiscal issues.

Mr. Powell previously served as an Assistant Secretary and as Under Secretary of the Treasury under President George H.W. Bush, with responsibility for policy on financial institutions, the Treasury Debt Market, and related areas. Prior to joining the Administration, he worked as a lawyer and investment banker in New York City.

So we thank Chairman Powell for attending today's hearing and look forward to hearing his insights. You are now recognized for your testimony, Mr. Powell.

[The prepared statement of Chairman Lee appears in the Submissions for the Record on page 31.]

STATEMENT OF HON. JEROME H. POWELL, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, WASHINGTON, DC

Chairman Powell. Thank you, Chairman Lee and Vice Chair Maloney, and members of the Committee. I appreciate the opportunity to testify before you today.

Let me start by saying that my colleagues and I strongly support the goals of maximum employment and price stability that Congress has set for monetary policy. We are committed to providing clear explanations about our policies and our actions. Congress has given us an important degree of independence so that we can effectively pursue our statutory goals based on facts and objective analysis. We appreciate that our independence brings with it an obligation for transparency and accountability. Today I will discuss the outlook for the economy and for monetary policy.

The U.S. economy is now in the 11th year of this expansion and the baseline outlook remains favorable. Gross domestic product, or GDP, increased at an annual pace of 1.9 percent in the third quarter of this year after rising at around a 2.5 percent rate last year and in the first half of this year. The moderate third-quarter reading is partly due to the transitory effect of the UAW strike at General Motors. But it also reflects weakness in business investment which is being restrained by sluggish growth abroad and by trade developments. These factors have also weighed on exports and manufacturing this year. In contrast, household consumption has continued to rise solidly supported by a healthy job market, rising incomes, and favorable levels of consumer confidence. And reflecting the decline in mortgage rates since late 2018, residential investment turned up in the third quarter following an extended period of weakness.

The unemployment rate was 3.6 percent in October—near a half-century low. The pace of job gains has eased this year but remains solid; we had expected some slowing after last year's strong pace. At the same time, participation in the labor force by people in their prime working years has been increasing. Ample job opportunities appear to have encouraged many people to join the workforce and others to remain in it. This is a very welcome development.

The improvement in the jobs market in recent years has benefited a wide range of individuals and communities. Indeed, recent wage gains have been strongest for lower-paid workers. People who live and work in low- and middle-income communities tell many of them at these Fed Listens events that the Chair and Vice Chair referred to—tell us that many who have struggled to find work are now getting opportunities to add new and better chapters to their lives. Significant differences, however, persist across different groups of workers and different areas of the country. Unemployment rates for African Americans and Hispanics are still well above the jobless rates for whites and Asians, and the proportion of the people with a job is lower in rural communities.

Inflation continues to run below the FOMC's symmetric 2 percent objective. The total price index for personal consumption expenditures increased 1.3 percent over the 12 months ending in September, held down by declines in energy prices. Core PCE inflation, which excludes food and energy prices and tends to be a better indicator of future inflation, was 1.7 percent over the same period. Looking ahead, my colleagues and I see a sustained expansion of economic activity, a strong labor market, and inflation near our symmetric 2 percent objective as most likely. This favorable baseline partly reflects the policy adjustments that we have made to provide support for the economy. However, noteworthy risks to this outlook remain. In particular, sluggish growth abroad and trade developments have weighed on the economy and pose ongoing risks. Moreover, inflation pressures remain muted, and indicators of longer-term inflation expectations are at the lower end of their historical range. Persistent below-target inflation could lead to an unwelcome downward slide in longer-term inflation expectations. We will continue to monitor these developments and assess their implications for U.S. economic activity and inflation.

We also continue to monitor the risks to the financial system. Over the past year, the overall level of vulnerabilities facing the financial system has remained at a moderate level. Overall, investor appetite for risk appears to be within a normal range, although it is elevated in some asset classes. Debt loads of businesses are historically high, but the ratio of household borrowing to income is low relative to its pre-crisis level and has been gradually declining in recent years. The core of the financial sector appears resilient, with leverage low and funding risk limited relative to the levels of recent decades. At the end of this week we will be releasing our third Financial Stability Report which shares our detailed assessment of the resilience of the U.S. financial system.

Turning to monetary policy: Over the past year, weakness in global growth, trade developments, and muted inflation pressures have prompted the FOMC to adjust its assessment of the appropriate path of interest rates. Since July, the Committee has lowered the target range for the Federal funds rate by three-quarters of a percentage point. These policy adjustments put the current target range at one-and-a-half to one-and-three-quarters percent.

The Committee took these actions to help keep the U.S. economy strong and inflation near our 2 percent objective and to provide some insurance against ongoing risks. As monetary policy operates with a lag, the full effects of these adjustments on economic growth, the job market, and inflation will be realized over time. We see the current stance of monetary policy as likely to remain appropriate as long as incoming information about the economy remains broadly consistent with our outlook of moderate growth, a strong labor market, and inflation near our symmetric 2 percent objective.

We will be monitoring the effects of our policy actions, along with other information bearing on the outlook, as we assess the appropriate path of the target range for the funds rate. Of course if developments emerge that cause a material reassessment of our outlook, we would respond accordingly. Policy is not on a preset course.

The FOMC is committed to ensuring that its policy framework remains well positioned to meet its statutory goals. We believe our existing framework has served us well. Nonetheless, the current low-interest-rate environment may limit the ability of monetary policy to support the economy. We are currently conducting a public review of our monetary policy strategy, tools, and communications—the first of its kind for the Fed. With the U.S. economy operating close to maximum employment and price stability, now is an especially opportune time to conduct such a review. Through our Fed Listens events, we have been hearing a diverse range of perspectives not only from academic experts but also from representatives of consumer, labor, business, community, and other groups. We will draw on these insights as we assess how best to achieve and maintain maximum employment and price stability. We will continue to report on our discussions in the minutes of our meetings and share our conclusions when we finish the review, likely around the middle of next year.

In a downturn, it would also be important for fiscal policy to support the economy. However, as noted in the Congressional Budget Office's recent long-term budget outlook, the Federal budget is on an unsustainable path with high and rising debt. Over time, this outlook could restrain fiscal policymakers' willingness or ability to support economic activity during a downturn. In addition, I remain concerned that the high and rising Federal debt can in the longer term restrain private investment and, thereby, reduce productivity and overall growth. Putting the Federal budget on a sustainable path would aid the long-term vigor of the U.S. economy and help ensure that policymakers have the space to use fiscal policy to assist in stabilizing the economy if it weakens.

I will conclude with a few words on the technical implementation of monetary policy. In January the FOMC made the key decision to continue to implement monetary policy in what we call an ample-reserves regime. In such a regime, we will continue to control the Federal funds rate primarily by setting our administered rates and not through frequent interventions to actively manage the supply of reserves. In the transition to the efficient and effective level of reserves in this regime, we slowed the gradual decline in our balance sheet in May and we stopped it in July. In response to the funding pressures in money markets that emerged in mid-September, we decided to maintain a level of reserves at or above the level that prevailed in early September. To achieve this level of reserves, we announced in mid-October that we would purchase Treasury bills at least into the second quarter of next year and would continue temporary open market operations at least through January. These actions are purely technical measures to support the effective implementation of monetary policy as we continue to learn about the appropriate level of reserves. They do not represent a change in the stance of monetary policy.

Thank you. I will be glad to answer your questions.

[The prepared statement of Hon. Jerome H. Powell appears in the Submissions for the Record on page 31.]

Vice Chair Maloney. Thank you so much for your testimony. The Chairman, along with other Senators, is voting. And because the Fed Chair needs to leave at 12:30 at a hard stop, he is suggesting that we limit our questions to four minutes so that everyone gets a chance to question.

So I will start and then go to Representative Marchant until the Chairman comes back.

So thank you. The full unemployment rate is well below the Fed's long-run estimate of 4.2 percent. Measures of under-employment and long-term unemployment also are at a near-decade low. Yet the unemployment rate for some groups is substantially higher. For example, the Black unemployment rate, while at a historic low, is still well above 5 percent.

Is the economy at full employment? Or could a tighter labor market draw more people back into the workforce?

Chairman Powell. Thank you. So we are charged to achieve maximum employment. And when we think about maximum employment, we look at not just unemployment but also labor force participation; we look at wages; we look at, you know, many, many data points. And I would say that what we have learned, and what we will continue to learn, is that the U.S. economy can operate at a much lower level of unemployment than many would have thought.

And it is probably not surprising that we would be learning that now, because we are at levels of unemployment that we have not seen in 50 years. This is the first time that we have had unemployment meaningfully below 4 percent for 18 months.

So we are observing this. And we are seeing, as you point out, that inflation is actually kind of moving sideways. And wages are moving at a healthy clip, but they are not moving up in a way that would be—that would suggest that there are upward price pressures.

So I think we are very open to the idea. I am very open to the idea that we do not know where maximum employment precisely is. We have to have significant humility when we make estimates of that, and we have got to let the data speak to us.

And the data are not sending any signal that the labor market is so hot, or that inflation is moving up, or anything like that. So I think what we have learned is that the current level of unemployment is consistent with a strong labor market, but it is not one that is in any way presenting difficulties. And it has many beneficial side effects, including pulling people back into the labor market, including wages moving up for people at the lower end of the wage spectrum.

So there is a lot to like about today's labor market, and we would like to see it continue to be strong. And we are using our tools to try to make that happen.

Vice Chair Maloney. As you noted, the economy has added jobs for 109 consecutive months. Unemployment is well below 4 percent. However, the annual wage growth is just 3 percent. Why is wage growth still below what we would expect with a strong labor market?

Chairman Powell. We might have expected wages to move up more this late in a lengthy, lengthy ongoing expansion, particularly with very low unemployment. And there are a number of possible explanations for why that has not happened.

One is just the productivity has been lower. So wages should ultimately equal inflation plus productivity. And that is right about where we are. We have 3 percent wage growth. That accounts for about 2 percent inflation and around 1 percent wage growth.

But there are other possibilities. One is just that there is still slack in the labor market. That can be part of the answer. We do not know with any precision. It also may be that the neutral rate of interest is lower than we have been thinking, and that therefore our policy is less accommodative than we had been thinking.

So I think we are letting the data speak to us and, you know, carefully monitoring the situation and trying to get answers to that question.

Vice Chair Maloney. Some have said it is the increased concentration in different industries that has given employers unprecedented power in keeping wages down. Is that——

Chairman Powell. So I think there are a number of other sort of institutional possible explanations, and trend explanations. You could point to automation. You could point to globalization. You could point to concentration among industries where over time U.S. industries have tended to get more concentrated as the economy has matured. You could also point to lower unionization. So any of those factors can well be playing, and probably all are playing some role in what is a bit of a puzzle for why we have not seen more of an uptick in wages.

Vice Chair Maloney. My time has expired.

Representative Marchant for four minutes.

Representative Marchant. Thank you, Madam Chairman. And thank you for being here today, Chairman Powell.

I would like to focus my questions today primarily on preparing for the next downturn, whether it be three years from now, five years from now, whenever it comes.

Historically speaking, is the Federal Reserve positioned as well as it has been positioned in past recessions when the Federal Reserve was the primary go-to agency where the Federal Government said, you know, we need help from you to stimulate the economy? Are we positioned there, or are we out of position?

Chairman Powell. Well, if you look at post-war, typical post-war recessions, what the Fed has done is it has cut interest rates. And on average the amount of those cuts has been 5 percent or so. So with the Federal funds rate having peaked at about 2.4 percent, and now being at about a little above 1½ percent, we do not have that kind of room. And there are a couple of reasons for that.

If you look at the longer-term interest rates which are not directly affected much by our policy, they have just been declining for 40 years now. And that is because of inflation being lower and under control and less volatile, and also just the aging demographics means higher saving, means more savings relative to investment, and that puts downward pressure on interest rates.

So I think the new normal now is lower interest rates, lower inflation, probably lower growth, and you are seeing that all over the world not just in the United States. You are seeing it to a much greater extent in many parts of the world than we are seeing it here.

So knowing that, that is one of the main reasons we have—really the basic reason why we are having this public review of our monetary policy framework to see if there are ways we can alter our strategies, our tools, and our communications in ways that would make us more effective in this world where we are too close, closer than we would like, to zero when we kind of run out of options.

So that is one thing. Fiscal policy will also be important, though. I think from the standpoint of monetary policy, we are looking hard at ways to make sure that we can use our tools even after rates go to zero. Ultimately, fiscal policy has been a key part of the counter-cyclical reactions as well, though.

Representative Marchant. And next question. The disruption in the repo market that took place in September? Anticipated? Not anticipated? Do you anticipate keeping the expansion at the level it is until you are sure that will not happen again?

Chairman Powell. Well, so anticipated or not it is a different world post-crisis, and really because of all the expansion in our balance sheet. And essentially what we have done now is we have now required financial institutions to have a lot more liquidity on their balance sheet so that the Fed does not have to run in with our own liquidity.

So that—and that is I think a big benefit to the financial system. But a lot of that liquidity is held in our reserves. We used to manage the interest rate by keeping reserves scarce, and we had a total of twenty billion. Right now we have in excess of one-point-five trillion in reserves. And so that means that we are trying to find that level as we allowed the balance sheet to shrink where reserves would become scarce. And there was really no way to know.

I think the data that we had suggested that we were not close to that point until September. I think we are still very much looking at what happened in September, but I think we learned in September that we needed to make sure that reserves did not go under that level that we were at in mid-September, which is a little bit shy of one-and-a-half trillion.

So that is really what we are doing. It is technical. I think we have it under control. We are prepared to continue to learn and adjust as we do this, but it is a process. I would say it is one that does not really have any implications for the economy or for the general public, though.

Representative Marchant. Thank you.

Vice Chair Maloney. Representative Beatty for four minutes.

Representative Beatty. Thank you, Madam Vice Chair, and to the Chair. And thank you, Chairman Powell, for being here.

We have four minutes. I have got three questions I want to try to get through, one on the CRA, one on venture capital, and one on climate change.

The first one on the CRA, as we have talked about it is very important to me. I know recently that the Feds and the Office of the Comptroller and Currency and the FDIC have all been working on a proposal to revamp that 1977 CRA Act. It is my understanding that they wanted to do a joint, but we are not sure if one of the agencies would go along.

CRA is very important to me and to my Third Congressional District in Ohio, like across the Nation, because of the resources it puts back into communities. And, more importantly, minority communities tend to benefit.

Do you have any insight on knowing where they are, or if they are working together and will be able to meet that end-of-the-year goal?

Chairman Powell. So we strongly support the mission of CRA, which is to assure credit availability in the areas that banks serve, particularly low- and moderate-income communities. We think it is a good time to modernize, given technological developments and all kinds of other developments.

We have been working very, very hard with the other two bank agencies to try to find common ground. And, you know, we are committed to making sure this reform actually puts us in a better place to serve the intended beneficiaries of CRA.

We have not quite gotten there yet. We are going to keep trying, though. And my hope is that we will ultimately be able to come together with a common answer, which I think would be better for everyone if we can do that.

Representative Beatty. Okay. My next question is: The Federal Reserve Bank of San Francisco recently held a conference entitled "The Economics of Climate Change," and I believe this was the first ever conference by the Feds on climate change and the economy.

Can you discuss how the Federal Reserve views the impact of climate change on our economy and monetary policy, and how the Fed's views have evolved over time?

Chairman Powell. So I guess I would say climate change is an important issue, but not principally for the Fed. It is really an issue that is assigned to lots of other government agencies, not so much the Fed.

Nonetheless, over time it can affect us in some ways, which I will mention. One just is that we require financial institutions and financial market utilities—the large utilities that are so fundamental to the financial system—we require them to be resilient against all kinds of things, including severe weather. There is a link between severe weather and climate change. So in a sense we are already, to the extent severe weather is becoming more common, we are already incorporating that into our supervision.

And we will have to think ahead. We are doing a lot of research in this area to think ahead about it from sort of a risk-management perspective. Our perspective is not—we are not going to be the ones who decide society's response. That is going to be elected legislatures, not us.

In terms of monetary policy, it does not have any near-term implications for monetary policy. Over time, climate change could have effects, but it is not something that we would be considering now.

Representative Beatty. Okay. And only because of my time. My last question is: There was a 2018 report by

PricewaterhouseCoopers that found that 80 percent of the venture capital investments went to just four states: California, New York, Massachusetts, and Texas.

I am from the great State of Ohio, and so I guess my question is, startups throughout the rest of the country, especially the Midwest, are overlooked. Are there any thoughts on the fact that an overwhelming majority of the venture capital is going to four states? What effect is this having on the regions like the Midwest?

Chairman Powell. Um, I would have to look at that study. I think, you know, a company that is in San Francisco can invest in a company that is in Ohio, though. So I would hope that they are not just investing in companies in San Francisco, but——

Representative Beatty. So we should maybe look at some partnerships and how that works?

Chairman Powell. I do think—you know, look, many of the successful companies in which venture capital firms invest are not located in those areas. Some of them are, but some of them are located anywhere in the country, really, where there are entrepreneurs.

Representative Beatty. Okay, thank you.

Vice Chair Maloney. Representative Schweikert, four minutes.

Representative Schweikert. Thank you, Madam Vice Chairman.

Chairman Powell, can I ask more of a global question? If you look at much of the data from the Fed, from the BLS, from others, our society is actually in, in many ways, a sweet spot. (A) Do you agree with that? (B) What do we do policy-wise to stay there? And for those of us up here, how do we not screw it up? And then, how do we actually bias it towards the positive? What would you do?

Chairman Powell. So as I mentioned, a 50-year low in unemployment. Inflation, low and under control. Labor force participation, ticking up. Consumer confidence high. The outlook is good.

I think households generally are focused on, according to the surveys, are focused on this healthy job market and wages going up. So it is actually a very good place from that standpoint. That is not to say that every community has benefited. We know that is not the case.

How do we keep it there? So the key to this, given the risks, the risks that we see are slowing global growth and particularly weaker manufacturing, and that affects U.S. manufacturing. So the key to keeping this going and to it continuing are that we keep job creation at a solid level; that households maintain their confidence; that wages keep moving up. That seems to be the engine that is driving the U.S. economy forward at this time.

But I want to go longer term with an answer. I mean the U.S. faces longer-term issues that really need your attention around labor force participation and productivity. Those are the two things that we really—where, you know—in labor force participation, we lag most other advanced economies. And that is something we can do something about that really the Fed cannot do much about.

So it is more about fiscal policy that supports attachment to the labor force.

Representative Schweikert. So much of the policy that we all engage in here could be pushing up labor force participation? We are right now at about what, 63.3——

Chairman Powell. That is right.

Representative Schweikert [continuing]. Which for some of our models of testimony we had as a committee a couple of years ago, we did not think we would get that far. But we have demonstrated that there is slack out there.

Could you touch on what we could do in that demographic headwind that is where we are in the United States to also encourage that labor force participation?

Incentives for someone who is older to stay in the labor force. Getting Millennial males to actually start to equal Millennial females in the labor force, what would you do?

Chairman Powell. Well I think there is a range of policies, and they would appeal I think across the political spectrum. Some of them are about labor demand. Some are about labor supply. And I think many of them would work. That is the great thing. And I think, you know, for young males it is going to be addressing the opioid problem. It is going to be skills and training and internships. We had a great meeting with a bunch of experts on internship programs recently.

I think you are seeing older people stay in the labor force more and more. Their participation is moving up. But you also see—I mean I think there are lots of programs which are pulling people, for example, women who have been out of the labor force back in after their kids are grown up. You see that happening, as well.

So I think there are just so many things that can be done. And, again, we lag just about every other wealthy country in the world in labor force participation for prime-age workers. This is not where we should be, and I think there are things we can do about it.

Representative Schweikert. In my last twenty-some seconds, slight non sequitur. Okay, with the dual mandate, how often in your conversations with your economist do you get into the discussion of currency differentials and headwinds that actually creates both in export and capital coming into the country? Where are we currency-wise in your conversations?

Chairman Powell. You know, exchange rates are one financial condition among many, and it happens to be one that is assigned to the Treasury Department for management. So they—the Treasury has full responsibility for exchange rate policy; we do not. It is just another—it is in all economic models, when we change policy.

Representative Schweikert. So it is just a model input?

Chairman Powell. It is just a model input. In no way is it a principal driver of the way we think about policy, or the way other central banks do.

Representative Schweikert. Thank you, Mr. Chairman. Madam Vice Chair, thank you.

Vice Chair Maloney. Thank you. Lois Frankel for four minutes. Lois Frankel.

Representative Frankel. Thank you, Madam Chair.

Thank you for being here, Mr. Powell. I want to read you something that has just been recently posted by the National Women's Law Center and get your comment on it. I have a couple questions related to this.

So we have all heard about the gender wage gap, women on the average make only 82 cents to the average man's dollar; much worse for women of color. But there are two sides to a family's budget: the income that comes in, and the expenses they pay out.

New research is finding that in addition to the wage gap, there is rising inequality on how quickly prices are rising for families struggling the most in the economy. This concept known as "inflation inequality" means the kinds of products that are disproportionately consumed by richer households—think organic produce and name-brand drugs—rose in price at a slower rate than the kinds of products consumed by low- and moderate-income households.

And a just-released research by Columbia University begins to quantify these impacts by updating poverty rates for an adjusted inflation index that accounts for inflation inequality. And the article goes on to suggest that an appropriate course of action would be to peg the Federal poverty threshold to a higher rate of inflation given how many more people would be considered in poverty when looking at the expense sides of the ledger.

I would just ask you whether or not any of this enters into any of your decisionmaking? Whether you have any research on this, or any comment on this?

Chairman Powell. It is an interesting—so I did see that research which showed that. So different groups of people buy different baskets of goods. And in principle inflation can be higher or lower. This was a piece of research that showed that the basket of goods that are bought by people at the lower end of the income spectrum have experienced higher inflation over time.

So the implication of that would be that their real incomes are even lower than we think. So I would like to see a lot more research on that. That is an interesting recent paper that is getting a lot of attention right now.

There is a—there is no definitive answer. There is a series that I guess the government currently conducts for consumer price inflation that looks at a basic basket of goods that finds a much smaller difference. Nonetheless, it is an important issue that needs further research.

Representative Frankel. Is that something that you would be doing? Or do you think somebody else should be doing that research?

Chairman Powell. Well, our researchers would do it, but you would tend to see, you know, the agency—whoever does CPI, the Bureau of Labor Statistics, would do that.

We have researchers who do research on inflation all the time. I am not sure whether the piece you—I do not think the piece you mentioned was a Fed piece. But we have researchers who research——

Representative Frankel. It was out of Columbia University.

Chairman Powell. Yeah, but there were co-authors. There were several co-authors.

Representative Frankel. And I wanted to ask you another subject. Could you explain the relationship of our immigration policy to the employment rate and the economy?

Chairman Powell. Sure. So first, we do not have responsibility for immigration policy. We do not comment on it. We do not advise anybody on immigration policy. It is completely not our role.

But it does kind of connect to our role in, you know, in analyzing the economy. So you can think of the economy's ability to grow as consisting of two things. One is how fast is the labor force growing? And secondly, how much is output per hour growing? That is what growth consists of, really just those two things.

In the United States, the trend growth of our labor force has been very slow. It was two-and-a-half percent in the 1960s. Now it is about a half a percent, and about half of that is immigration. So immigration is a key input into our longer-term growth rate.

And I would say if you look to population growth as a way to support higher growth for the United States, then immigration would need to be in your thinking. But again it is something we do not comment too much on.

Representative Frankel. Thank you. I yield back.

Vice Chair Maloney. Thank you.

Representative Trone.

Representative Trone. Thank you, Madam Chair.

Chairman Powell, thank you for being here today, very much. I had some questions also on labor market participation, and I think you have addressed those, and also on immigration, how that could help us increase our labor pool.

But I was thinking about the status across the country. Now we have got over 30 states who have put in minimum wage laws from $13 to $16. And there is something business is affected with everywhere. How do you see that is going to address the situation on the mismatch between labor's scarcity and yet this very low wage growth that we see? And how does that tie into inflation?

Chairman Powell. Well we do not take a position on the minimum wage. It is really an issue you have to balance. There are two things to balance. And if I were you, I would look at a broad range of research that comes to different perspectives. But in essentially all the research you see, when the minimum wage is raised a significant amount, you will see some job loss and you will see some wage gains.

I would look at a range of that research, and I would try to think what the right policy is. That is how I would do it.

In terms of inflation, it does not really play much into it. First of all, our mandate is price inflation not wage inflation. We do not see wages moving up in any kind of way that suggests that they would put unwelcome upward pressure on prices. So I do not really think it is an important part of the inflation discussion right now.

Representative Trone. In trying to translate this labor scarcity that we have into higher wages for the American workers, from 2012 to 2016 we had about a $120 increase per month in average wages. And then in 2016 to current, that has been cut in half, about $56 a month.

And yet this is in the time of the lowest inflation, as you said, in 50 years these last 18 months. So what does that mismatch between wage growth and lower unemployment mean to our economy?

Chairman Powell. Well, so we look at a wide range of wage and compensation measures. And what they tend to show is, if you go back five years wages and compensation were going up about two percent. That has gradually moved up to about three percent.

So the trend has been upward. And that is consistent with a tighter labor market, lower unemployment and surveys that suggest the labor market is tight; it is consistent with that. We have seen wages moving up. And we look—I could tell you the principal ones we look at, but I think that is true across all major measures of wages over the last let's say five, six years.

Representative Trone. Why do you think they have slowed so dramatically the last two years?

Chairman Powell. You know, I think it is hard to say. I think average hourly earnings is an important one which peaked at 3.4 percent earlier this year, or at the end of last year, and has been sort of trickling down. It is right at 3 percent now, so it is a fairly modest one.

I am not at all sure why that is. It may be compositional effects. Some argue that as older workers retire, younger workers come in at lower. But in any case, you know, it is consistent with this idea that we are not seeing excessive tightness in the labor market that is generating out-sized wage gains.

We are seeing kind of nice wage gains, given inflation and productivity, but nothing that is at all out of line with that.

Representative Trone. Thank you.

Chairman Lee. Chairman Powell, borrowing as a country, as a government, more than ever, with debt held by the public expected to reach 95 percent of gross domestic product within the next ten years. And yet we are also paying interest on that debt at an all-time historic low, with the 30-year borrowing cost of just 2.4 percent.

What is the reason for this, I guess some would say, fortunate fiscal reprieve at a time when Congress as an institution has shown really no sign of fiscal discipline at all? So where does it come from?

Chairman Powell. Well, it really is a long-term trend. For example, if you were to look at a graph of what the 10-year Treasury yielded, and if you went back 40 years, what you would see is a ski slope down. It is all the way down to today. This is a long-term trend—by the way, it is true all around the globe.

Now why is that happening? I think first of all it is inflation getting under control, becoming less volatile, and ultimately continuing to decline to the point where the risk of lower inflation is actually greater than the risk of higher inflation at the moment. That is part of it.

It is also just aging demographics. So as people get into their later years, they save more. That creates more savings per dollar of investment. And that tends to drive interest rates down.

And I do not know that that trend shows no signs of reversing or anything like that. So that is really what is going on with these longer rates.

Chairman Lee. Some have suggested that because we in the United States, that the United States Government borrows in its own currency. This level of spending is not a problem because the Fed can just monetize the debt and keep doing so more or less indefinitely. What is your reaction to that talk? Are there risks inherent in it?

Chairman Powell. Yes. No, and as I mentioned in my testimony, the fact that interest rates are lower does mean that we will pay less in interest. It does not mean that we can ignore deficits, at all. We are going to have to get on a sustainable path. What does that mean?

So the debt is growing faster than the economy. It is as simple as that, in nominal terms. And that is, by definition, unsustainable. Ultimately you will have to get it to where the debt is not growing faster than the economy. And it is growing faster in the United States by a pretty significant margin.

So even with lower rates, and even with decent growth, there is still going to be a need to reduce these deficits.

And I would say, by the way, that is a need over time. We are not in the business of advising you when to do that, or how to do it. But it is inevitable that over time we will have to do it. And, you know, frankly, if we do not do it what happens is our children will wind up spending their tax dollars more on interest than the things they really need like education, security, and health.

Chairman Lee. In the past you have mentioned uncertainties in the area of international trade as imposing something of an economic headwind for us. We have had over the last couple of years a lot of trade measures going into effect. What has the Fed learned about the interaction between trade and monetary policy?

Chairman Powell. So the first thing I need to say is we should never be heard to be commenting on trade policy. It is not our job. We try to stay in our lane. But our lane is the economy. But we do not have any view at all, and we would not express one, on trade policy itself.

Our lane is the economy. So in principle, anything that affects our ability to achieve our mandated goals is an appropriate subject for monetary policy. So we have been hearing now for a year-and-a-half from companies, and I think this is fairly widely accepted now, that tariffs, but to an even greater extent, uncertainty around future trade policy is for now, it has been weighing on business sentiment, and is probably part of the global slow-down in manufacturing, in business investment, in exports in trade, part of the story. There is a much bigger story out there, but it is a part of that.

Chairman Lee. I see my time has expired.

Senator Klobuchar.

Senator Klobuchar. Thank you very much, Mr. Chairman. Thank you to you, Mr. Chairman, for being here today.

Some of the issues that I was going to raise have been discussed, the challenges ahead with our economy, including the deficit, which I will note was greatly exacerbated by the last tax bill, as well as problems in some sectors such as agriculture, which is very important to us in the Midwest.

But I wanted to focus on a third issue I have, which is income inequality, and even if people have jobs it is often hard for them to afford things. And then you have the added problems and strains. The Washington Post reported this year in September that income inequality in America is the highest it has been since the Census Bureau started tracking it more than five decades ago.

The top one percent experienced income growth of over 200 percent in the last decades, and between 2007 and 2016 the median wealth of lower-income families fell by 42 percent.

In your opinion, will widening inequality lead to lower growth expectations over the long term? And what should we be doing about this?

Chairman Powell. So I guess I would start by saying that I think we probably would all agree that prosperity should be as widely shared as possible. And so I would just point to two aspects of the broader problem that I think are important and need attention.

The first is just the relative stagnation of incomes below the fairly high part of the distribution. And that is even after allowing for taxes and benefits and things like that. That is one thing where we want to see incomes moving up broadly across the income spectrum.

The second is mobility. I think you want to see people moving from the bottom to the top, and vice versa, by the way. It has to happen, just as a matter of arithmetic.

So, for example, the bottom 20 percent, what are the chances that if you are born in the bottom 20 percent of income or wealth you will make it to the middle 20 percent, or the top 20 percent?

The United States actually lags most other wealthy countries in that measure now. This is very much not our self-image as a country, and those are things we need to address. So I think those are important.

Senator Klobuchar. Um-hmm, that is one. And I think increasing the minimum wage. I have my own views on this, would be helpful. But as you talk about that, one of our challenges right now is hooking up our education system with the jobs that are available right now, and making sure everyone has access to those jobs.

And I do not think it always means a four-year degree. Some of the fastest-growing job areas are one- and two-year degrees. There were 64,000, or 74,000 openings for electricians. And one of the things I am really focused on is apprenticeships, and trying to make it easier for people to access those kinds of degrees.

Could you briefly talk about that?

Chairman Powell. We just met last week with six people who run apprenticeship programs and funding of apprenticeship programs around the country in our board room, and I have to tell you, it is very, very impressive what they can do.

They are focusing on low- and moderate-income communities. They are getting them in high schools, and out of high schools, and matching them up with employers who need those people.

They are getting good jobs. It is really working. And the thing that limits their ability to do this on a much wider scale is funding.

Senator Klobuchar. Um-hmm. Exactly.

Chairman Powell. It is very impressive what they can do.

Senator Klobuchar. I think a lot of this is how we use our resources for education, and matching that up. I will ask you, in writing, a question on retirement. I just think it is becoming such a challenge in our new economy. And Senator Coons and I have a bill to address that called, with UP savings accounts, which I think is a great idea for small and medium businesses.

But my last thing is back to the income inequality, very briefly. How would reporting economic statistics by income bracket benefit our understanding of the economy? We do not have that right now.

Chairman Powell. We are actually doing something with that at the Fed. You know, we like to cut data up and look at it in new ways, and this is one of the things we are doing, is combining a couple of data sets that we have. We are quarterly publishing a distributional financial account.

Senator Klobuchar. And when will we get that, then? By the next——

Chairman Powell. It comes out every quarter. So it is a new thing that we are doing, and again it is just a combination of two existing data sets that we have. But we think it is an interesting insight into the economy. There are a lot of different ways to look at what is happening in the economy, and that is an important one.

Senator Klobuchar. Thank you.

Chairman Lee. Representative Herrera Beutler.

Representative Herrera Beutler. Thank you.

So I apologize if some of this ground has already been covered, but it is a pleasure to be here and to have you. I would say the growth in the forecast of our economy is probably the number one thing that impacts the people I serve in southwest Washington. And so it is helpful to hear from your perspective.

Specifically, in rural communities where unemployment is higher than the national average, most of my areas are rural—although we are bumping up everywhere. I wanted to hear some of your biggest takeaways. And I have gone through some of your testimony, again I apologize if you are repeating, but in terms of outlook and some of the things that we have done in the most recent years with regard to the Tax Cuts and Jobs Act, different regulatory changes, but to either maintain the growth that we have seen, or expand it, what recommendations would you give?

Chairman Powell. Well, first I think the outlook is still a positive one. There is no reason this expansion cannot continue, and there is a lot of value in continuing it. And we are trying to use our tools to accomplish that.

We are seeing in the 11th year of an expansion, now the longest in U.S. recorded history, that income gains are the highest at the lower end of the wage scale. And so it is very positive.

We are also seeing people being pulled back into the labor market. There is a lot to like about this rare place of the 11th year of an expansion. And I think we are certainly committed to doing what we can to extend it.

Representative Herrera Beutler. In that vein, I know your testimony touched on concerns with regard to the national debt. Could you elaborate on that, and how it should be addressed, particularly as it relates to expanding, or at least not contracting the economy?

Chairman Powell. So I think it is a longer-term issue that I imagine we all realize will have to be addressed over time. It is just the case now that the debt is growing faster than the economy, than the nominal GDP. And ultimately in the long run that is not a sustainable place to be.

Now how to fix that, it is easy to say that. How you do that, and when you do that, is an issue that is up to you and not to us. But I would be remiss in not pointing out that the consequences of not addressing it are just that we will be spending more and more, our kids really and grandkids, they will be spending their tax dollars servicing debt rather than on the things they really need. As I mentioned earlier, education, health care, security, all the things that we need, that they will need, they will be spending more and more of their money on the debt. You do not need to balance the budget, or pay down the debt or anything like that, you just need to get the economy growing faster than the debt. And that should be I think the goal. And by the way, the successful programs for countries to get back on a sustainable path tend to take place over a long period of time and be relatively gradual. And I would be looking at something that would work over time, but really would not be giving you a lot of advice on how to do it.

Representative Herrera Beutler. With my final 30 seconds, do you anticipate maintaining the current Fed rate through the next year?

Chairman Powell. No, I would not say that at all. What we have said, what I have said here, and I will go right to the actual language, is that we see the current stance of monetary policy as likely to remain appropriate as long as incoming information about the economy remains broadly consistent with our outlook of moderate growth, a strong labor market, and inflation near the symmetric 2 percent objective.

So that is a very data-dependent statement. We do think monetary policy is in a good place, but we are going to be watching very carefully incoming data. And if developments emerge that cause a material reassessment of the outlook, then we will act appropriately.

Representative Herrera Beutler. Context, context, context. Thank you. I appreciate it. With that, I yield back.

Chairman Lee. Representative Beyer.

Representative Beyer. Mr. Chairman, thank you very much for your equanimity, your strong and stable leadership, and for providing about the most straightforward answers of anybody we talk to.

Yesterday at the Economic Club of New York, the President continued his criticism of the Fed saying it had put the U.S. at a competitive disadvantage. And he also floated the idea of negative interest rates.

Do you take comments from public officials into account when implementing monetary policy? And is there any precedent in U.S. history for this kind of criticism, or praise, from an American President?

Chairman Powell. We look exclusively at the data, at the research, and at the performance of the U.S. economy. Those are the things we—we have a very careful, thoughtful process that has been developed over decades, over a century, really, and that is how we try to set interest rates.

We do not consider political factors and things like that in what we do.

Representative Beyer. Thank you. I have a friend in Switzerland who went to borrow $10 million and got a negative interest rate, negative three-tenths of a percent. So they are paying him $30,000 a year to borrow $10 million.

Do you see any prospect for negative interest rates in the U.S. economy?

Chairman Powell. Negative interest rates would certainly not be appropriate in the current environment. Our economy is in a strong position. We have growth. We have a strong consumer sector. We have inflation that is a bit below target. So the very, very low and even negative rates that we see around the world would not be appropriate for our economy.

You tend to see negative rates in the larger economies at times when growth is quite low, and inflation is quite low. That is just not the case here. It is different for some of the smaller European countries. It is really about keeping their currency from appreciation, which is the case with a number of those countries.

Representative Beyer. From December 2015 through December 2018, there were slow consistent increases in rates. And we have turned that around with recent cuts this year. Is there enough room to cut rates further, if we get another slowdown or recession? Have we given up monetary policy as a tool at the moment for dealing with that?

Chairman Powell. Well, a typical post-World War II recession has involved rate cuts of close to 5 percent. The current Federal funds rate is in the mid-150s. So we are well short of that one-and-a-half percent.

So I think it is a fact not just in the United States but around the world that central banks are going to have less room to cut in this new normal of lower rates and low inflation. So that is why we are conducting this external review of monetary policy at the Fed. We are looking for ways to make sure that we have the tools to do what we are assigned to do, by you, which is achieve maximum employment and stable prices even in downturns. And that is what we are going to be doing.

I will say also, though, that fiscal policy is often part of the answer, often a big part of the answer, when there is a severe downturn. And we would certainly look for that to be the case if needed.

Representative Beyer. Thank you again by bringing up the challenge the public debt faces all of us here. I was raised to believe that money supply and growth were causally related. That if our money supply grew more quickly than our economic output that inflation was the inevitable result. But we are at less than two percent this year. You have muted expectations.

Is there no longer a connection between money supply growth and inflation? Should I pay any attention to modern monetary theories, for example?

Chairman Powell. Well the connection between monetary aggregates and inflation, that is something we all learned in Econ

101. I did. It was important. It was generally thought to be—and empirically it was a good relationship.

I think about 40 years ago, as the financial system developed all kinds of alternative forms of money, the relationship between monetary aggregates and growth has just gone away.

And so we do not—we of course look at those aggregates, but they no longer are a driving part of the theory. It is really the price of money, as opposed to the quantity that we look at, which is interest rates.

Representative Beyer. I am out of time, but thank you very much. Mr. Chairman, I yield back.

Chairman Lee. Senator Cotton.

Senator Cotton. Thank you, Mr. Chairman.

Chairman Powell, welcome back. I want to start off by talking about China's economic growth. Maybe I should say China's economic "growth" in quotes. They have reported most recently six-and-a-half percent growth. That is down from most of the last 30 years, but still probably somewhat inflated. In fact, Michael Pettis at the Carnegie Endowment for International Peace says that Chinese industrialists and economists find it hard to find any economic sector in China enjoying any growth.

They had a few findings that I found to be quite interesting. First, GDP is not a particularly useful measure for determining Chinese growth because they have such massive investments in nonproductive activities.

Second, that China likely distorts its GDP significantly in a way that is systematically pushing it higher.

And then third, that increasingly GDP as reported in China is not so much a measure of economic output but a measure of political intent, given the benchmarks that China imposes on local governments. As well as many state-owned enterprises, as long as they have debt capacity and can postpone the writing down of nonproductive assets, they could essentially achieve any growth target they wanted.

What are your thoughts about this general question of Chinese growth, and the specific points that Mr. Pettis' research had found?

Chairman Powell. I think it is very hard. I certainly feel that it is very hard to understand China. You can read all you want. You can visit it all the time. But nonetheless, it is still very hard I think for me, anyway, to really feel like you understand the way the economy works, the way the society works. So I think you have to, as a general matter, just accept that it is really hard to know.

I think on economic data in particular, you know, we do not—and I am familiar with Michael Pettis and his research and all that—but we have not taken a view as an institution about that. I think a couple of things are worth noting.

One is that it may be that there is more information in the change than there is in the level, if you know what I mean. Another is that we have noticed here in the last few years that the volatility of their economic reports has declined substantially, which kind of suggests a little bit more management.

Nonetheless, we do not really know. The truth is, we do not really know. We have to take the data, and we do take it with a bit of a grain of salt.

Senator Cotton. You spend at the Federal Reserve, with your many capable economists there, a lot of time looking at a lot of underlying indicators, and statistics to try to assess the direction of our economy. When you look at not just how the Chinese leadership in the communist party behaves, but when you look at some of those indicators of how their people are behaving, or how other things like say maybe energy inputs, or shipping and so forth, do you see a country behaving as if they have almost 7 percent growth right now?

Chairman Powell. It is hard to say. I would say that one thing that is notable is that they have not responded with massive stimulus to this current situation. They have had—obviously over a longer period of time, growth has been slowing from, you know, three decades of 10 percent as an economy matures. And I think they are trying to manage that decline.

They did put an awful lot of stimulus to work after the financial crisis, and that supported their growth. I think they have been much more cautious and careful. They have a deleveraging campaign, as I am sure you know, that has been going on now for one or two years, and they have not really backed away from that.

And that is part of, by the way I think that is part of the global slowdown, actually, is trying to at least stop debt from growing inside China where they have unusually high debt as a society for any emerging market nation.

So I would say that they are behaving relatively thoughtfully and responsibly in response—they appear to be—in response to this current slowdown.

Senator Cotton. Alright, thank you. My time has expired.

Chairman Lee. Senator Hassan.

Senator Hassan. Well thank you very much, Mr. Chair, and I appreciate your and the Vice Chair's convening of this meeting.

And to Chair Powell, thank you for being here and for your work. Mr. Powell, as you know it is critical to the long-term safety and stability of the U.S. economy that the Federal Reserve makes data-driven decisions and remains independent from political influence.

Unfortunately, recent political pressure on the Fed is having real-world economic consequences. A recent study found that markets react each time you are publicly pressured to intervene in the economy, with a quantifiable change in investors' expectations that the Fed's interest rate targets will drop.

Chair Powell, can you tell the Committee what actions you are taking at the Federal Reserve to not only insulate against political influence but also to signal to investors that the Fed makes independent decisions based on sound economic analyses?

Chairman Powell. Thank you. So politics plays absolutely no role in our decisions. We use the best data, the best analysis we can muster. We are human. We will make mistakes. But we will not make mistakes of character or integrity.

So I am familiar with that research, and I will just say I think it is very hard to look at, you know, our incredibly complicated financial markets and economy where many, many things are driving results, and pull out one or two tiny effects. There is other research that points to different results, but it is absolutely essential that everyone understands that we are doing our jobs as we always have, without regard to politics.

We serve all Americans. We do the best we can based on our analysis. We try to be as transparent as we can. We explain ourselves, put everything we do on the record. When people dissent, they put their dissent on the record. And that is as it should be.

Senator Hassan. Well I just think it is important, understanding that research is complicated, that we do not complicate it further with political actors putting pressure on the Fed. And that has been the norm and the tradition, and it is one that I hope we can return to.

I wanted to follow up on something that Senator Lee had talked to you about. Because as a member of the Senate Finance Committee, which also has jurisdiction over trade, I am pushing for clear, strategic trade policy that provides certainty to struggling small businesses.

As you and I have talked about, I have heard from businesses all across my state that have been targeted by China's unfair trade practices, including the theft of intellectual property and the forced transfer of proprietary technology.

On top of these economic harms, the Administration has manufactured endless trade uncertainty and heaped damaging tariffs on New Hampshire's businesses. I know you have repeatedly said, Chair Powell, that this recent trade uncertainty has created risks for the U.S. and global economies. Can you expand a bit on your previous answer on how trade uncertainty has impacted the economic outlook, and what you view as the Fed's proper role in responding to the ongoing trade tensions with China?

Chairman Powell. So we hear from businesses, and have been hearing from them for a year-and-a-half that this is a big issue for them, and that it is holding them back from making decisions.

In the first instance, businesses were looking at ways to rearrange their supply chains. Almost all manufacturing businesses these days have supply chains. So I think it has been a real distraction for management, and I think it has weighed on businesses' willingness and ability to invest and keep growing and that kind of thing.

In terms of the appropriate response, you know, our response is not to give advice on trade policy, but it is to react to whatever it is that is either helping or hurting our ability to achieve our mandated goals. And so this is one of those things. We call it out as something that we are aware of, and as something that is weighing on business sentiment and ultimately on the economy.

Senator Hassan. Well thank you for that. And I will just note, we may submit to the record that I share Representative Frankel's interest and concern about the inflation gap. It is not just a wage gap, but the impact of inflation in particular on working and middle-class families. And I hope that that is something that we can learn more about from the Fed.

Thank you, Mr. Chair.

Chairman Lee. Senator Heinrich.

Senator Heinrich. Welcome, Chairman, and thank you for coming to testify today.

I had a chance recently to meet with a number of European central bankers, and they really outlined for a group of us the steps that they are taking to understand and quantify and mitigate the risks that climate change is posing to the financial markets. So I wanted to ask you what the Fed is doing to understand those risks, and to look at their role in the economy as we are moving forward.

Chairman Powell. I would just say that climate change is an important issue, but it is not one that is given principally to the Fed to deal with, if you will. Other agencies have that.

Senator Heinrich. Clearly that is the case. I just want to understand if we are looking in a broad way at risk and understanding the data from that sort of lens.

Chairman Powell. So I think that is the right lens. The lens for us is risk management. So we are doing—there are researchers all through the Federal Reserve System who are thinking about the longer-run implications of climate change for the economy, for financial institutions, and for all kinds of things.

And I think that is appropriate research. We are just globally at the beginning of understanding that. And there is a lot of research going on, including a significant amount at the Fed.

I think, honestly, for monetary policy it is not a current consideration. It would not be something that would have any effect on the current setting of monetary policy.

Over time, though, it could, for example, affect the neutral rate of interest, or the volatility of economic activity and things like that. Those are things that, you know, we are thinking about for the longer term.

I think the public will expect us to assess any risk and use that assessment in the way we supervise and regulate financial institutions, and also just potentially over the longer term in terms of monetary policy.

Senator Heinrich. Do you have an opinion on the robustness of how U.S. banks, broadly, are analyzing that risk? And basically, what I am asking is do we need to start thinking through whether or not we need to either self-impose or at some point impose some sort of stress test to look at the assets that banks are holding, and whether they are not—whether they do not have some concentration of risk if they are not thinking through that appropriately?

Chairman Powell. What we are doing now is we are trying to make sure that financial institutions that are in regions that may be subject to severe weather have plans to have redundant systems, and be able to be resilient to that. That is the main thing we are doing.

So the Bank of England, as it sounds like you are aware, is doing a stress test based on climate scenarios. But it is a stress test that is meant to be purely informative. It would not do what our CCAR stress tests do and potentially limit distributions and that kind of thing.

That is an interesting idea. We will be monitoring it, and I think we are going to benefit from some of the activity around the world that we are seeing with other central banks. We will try to learn from what they are doing.

Senator Heinrich. We are obviously already seeing some places where it is harder to turn over a house in flood-prone areas. And if you had a concentration of mortgages that you were holding in areas like that, obviously that could pose a real financial risk.

Do you think that GDP data adequately gives us enough of a picture about who is benefiting from the economy? And I guess in other words, should we be looking at how economic growth is being distributed across the quintiles of the economy?

Chairman Powell. I think it is really hard to capture Gross Domestic Product in a $22 trillion economy. I think the people who do that do a great job at it, but it is quite difficult.

We actually—it is interesting to try to cut the income data. So we are doing some of that now with our distributional financial accounts. Other agencies are doing the same thing.

I think when you have the data, we have a tendency to want to cut it up different ways and see what we learn. And so we are doing that now. And I think it is informative about the way income and wealth are shared, broadly speaking, in the country. It is an important perspective.

Senator Heinrich. We are certainly looking forward to seeing that data. Thank you.

Chairman Lee. Senator Cruz.

Senator Cruz. Thank you, Mr. Chairman.

Chairman Powell, welcome. Thank you for your testimony. We are right now experiencing remarkable economic growth across the country. We have the lowest unemployment in 50 years. We have the lowest African-American unemployment ever recorded. We have the lowest Hispanic unemployment ever recorded.

In your judgment, what economic policies have played the most important part in generating that economic growth that we are seeing right now?

Chairman Powell. Well, I think I would be reluctant to single out particular policies. I will just say this, though, that it has been a long, slow recovery, but it has come a long way. We are now in the 11th year. It is the longest since we began keeping credible records of the U.S. economy in the mid-1800s, the longest one, and we hope a significant way to go.

We have just seen continued improvement. And I think I would point to a couple of things. These long expansions are common now, and that really is because we conquered the high inflation.

We have seen three of the four longest expansions in U.S. history have been among the last four expansions. So it has kind of become the norm to have these long ones.

I hope everyone takes credit for the good economy we are seeing now, because it is a really good place. I think it is worth noting, you know, as you mentioned, a 50-year low in unemployment, wages moving up at the bottom of the scale more than anywhere else. Growth continuing at a solid pace in the 11th year of the expansion.

I think it is a really good time, and I want everybody to get credit for that. Not us.

Senator Cruz. So I have real concerns that going into 2020 that we may see a slowdown in investments, as those allocating capital look at the political scene, and look at some of the economic proposals being put forth by democratic candidates for president. And I have concerns that that may cause people to tap the brakes in terms of deploying capital until at least after the election and finding out whether these policies might possibly be implemented.

In your judgment, what would the likely economic impact be of the Federal Government implementing a massive tax increase?

Chairman Powell. Senator, I am pretty reluctant to be pulled into the 2020 election, if you will forgive me.

Senator Cruz. And I certainly do not expect you to comment on the election, but you can comment on the economy and if a massive tax increase is good or bad for the economy.

Chairman Powell. Again, indirectly as you started out your question, it is about proposals of candidates, and I just honestly do not want to get into that business if you will forgive me.

Senator Cruz. Well let me ask you, a number of candidates are proposing a wealth tax, not just on income but on wealth. Do you have any views on the economic behavior that would likely follow from a wealth tax scaling as high as 8 percent annually?

Chairman Powell. It is really not our role to score or evaluate campaign proposals. That is what the CBO does. That is what lots of other people do. We really try to stay out of that business.

Senator Cruz. Alright, well let's try a different thing. Former Chairman Ben Bernanke in 2014 called the shale revolution, quote, "one of the most beneficial economic developments in the country."

Do you share that assessment? And conversely, do you have concerns about the impact on the economy if the Federal Government were to ban fracking and shut down the shale revolution?

Chairman Powell. I would certainly agree. I think that the energy independence of the United States is something that people have been talking about for 50 years, and I never thought it would happen and here it is. It is in the nature of a miracle, it seems to me. So it is a great thing, I would say. That is not to say there are not issues to manage—environmental issues, all kinds of other issues—but I think it has been a great thing for the country.

Senator Cruz. And would it be harmful to end it, economically?

Chairman Powell. Well I would not be looking—I would not be—I think to shut down the shale industry, yeah, that would probably not be a good thing for the economy.

Senator Cruz. Thank you.

Chairman Lee. Thank you very much, Mr. Chairman. We know you have a hard stop here in about two minutes. I wanted to use my prerogative as Chairman to ask one final question.

We are in the middle of some pretty strong economic activity with very low unemployment, almost unprecedented economic stability. What policy or policies should we pursue to keep that going?

Chairman Powell. Well I think if you are asking for my views on that, I think that the thing to focus on, if I were in your shoes, are the longer-run issues that we face particularly around labor force participation and growth. It is about the potential growth of the United States.

We are seeing now how important it is and how good it is to have a long expansion with a lot of growth, and how it benefits people across the income spectrum. So I cannot overstate the importance of that.

I think in the longer run, the things we need to address are labor force participation and productivity, which is closely linked to education. So I think our workers need to have the skills and aptitudes to win in a global economy. And those are the things that are going to matter for our children and our grandchildren, is what can we do now to keep the U.S. sustainable longer-term growth rate as high as it can be going forward.

Chairman Lee. Thank you very much. Thanks so much for joining us today, and thanks for your service on behalf of our country.

The record will remain open for two weeks, and we stand adjourned.

Chairman Powell. Thank you, very much.

[Whereupon, at 12:27 p.m., Wednesday, November 13, 2019, the hearing in the above-entitled matter was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF HON. CAROLYN B. MALONEY, VICE CHAIR, JOINT ECONOMIC COMMITTEE

Thank you, Chairman Powell, for testifying today.

I look forward to hearing your perspective on the current state of the economy and the potential challenges ahead.

I'd also like to thank you for your thoughtfulness as you help steer the economy through what in some ways are challenging times.

As you have said in your testimony, by some measures, our economy is strong.

The national unemployment rate fell from 10 percent at its peak during the Great Recession to only 4.7 percent when President Trump took office.

And it has continued to fall; it now stands at only 3.6 percent.

The economy has continued to add jobs—now for 109 consecutive months—more than nine years.

Inflation remains low, below the Fed's target.

Wages are moving up, though not as fast as we would like.

But other measures tell a different story.

GDP growth has slowed—falling below 2 percent in the third quarter.

Job growth is also slowing. In fact, it has lagged behind the last years of the Obama administration.

About 35,000 fewer jobs have been added per month during the first 33 months of Trump than the last 33 months of Obama.

Manufacturing is in recession, business investment has been shrinking for the past two quarters and productivity fell last quarter for the first time since 2015.

Some of these more troubling developments may be a sign of a possible end to our decade-long economic expansion.

Or a slow fade from the "sugar high" of the 2017 tax cuts.

But the most likely cause of economic uncertainty is the President's trade war.

This leads to a fundamental question—how should the Federal Reserve act, when one of the major challenges facing our economy is the erratic behavior of our President himself?

No—I won't ask you to answer that question. But it's on everyone's mind.

You have a tough job.

In past months, you have conducted a Federal Reserve listening tour—"Fed Listens."

I want to thank you for taking the time to hear from Americans from all walks of life who experience our economy very differently.

As you know, the economy as a whole can be very strong while entire segments of the U.S. population struggle.

Some regions still have not recovered from the Great Recession.

Not all demographic groups have shared equally in the economic growth of the past decade. As members of Congress, we need to serve all Americans.

You have shown that this is your concern too.

It used to be that "a rising tide lifts all boats."

But that has become less true, and we know that the tide lifts some boats much more than others.

That's why I have introduced legislation that would give us insight into whom the economy is working for.

My bill, the Measuring Real Income Growth Act, would require the Bureau of Economic Analysis to report GDP growth by income decile and the top 1 percent alongside the top line number.

It would tell us who is benefiting from economic growth.

And that takes me back to the fundamental question before Fed policymakers.

How low should unemployment go?

How does the Fed weigh the benefits of very low unemployment vs. the risks of inflation?

We've had 11 straight quarters of an unemployment rate below what CBO tells us is the so-called natural rate of unemployment.

Yet inflation remains comfortably below the Fed target rate.

Which raises the question: has the traditional relationship between unemployment and inflation weakened?

If it has, why?

Is it downward price pressure from around the globe?

Or, increased market concentration in certain industries in the United States eroding worker bargaining power?

Or, are there other factors at play?

And what if unemployment is extremely low—suggesting that we are at full employment, but the unemployment rate for African Americans or Latinos remains much higher?

What if the unemployment rate for people in some communities, or those who work in some occupations, is stubbornly high?

These are questions with wide-ranging implications for both fiscal and monetary policy.

Chairman Powell, I'd like to close my remarks because we have a lot of ground to cover.

But before I finish, let me again express my admiration.

You have a tough job. Thanks for doing it.

I look forward to your testimony.

OPENING STATEMENT OF HON. MIKE LEE, CHAIRMAN, JOINT ECONOMIC COMMITTEE

Good morning and welcome all to the Joint Economic Committee's annual hearing with the Chair of the Federal Reserve's Board of Governors. I would like to extend a warm welcome to Chairman Jerome Powell, and I look forward to our discussion on monetary policy and the state of the economy.

Our economy has finally recovered from the financial crisis of 2008. Unemployment reached a 50-year low of 3.5 percent in September and most recently stood at 3.6 percent. The share of working-age adults with a job has returned to pre-crisis levels.

However, despite this welcome return to normalcy in employment measures, many aspects of the economy remain unusual—and particularly so for central bankers. Inflation remains persistently low; in four of the past five quarters, inflation has been below the Federal Reserve's two percent target.

Treasury yields also remain low, with a 10-year borrowing rate of just 1.7 percent. Interest rates that once were considered extraordinarily low have become a long-run expectation.

These phenomena of low inflation and low long-term interest rates are not unique to the United States, but rather, echoed in most developed markets around the world today.

This moment brings with it some challenges, such as building a framework for fighting recessions in a low-interest-rate environment. However, it also brings opportunities: with inflation still in check, we may yet have room to expand employment even further.

As ever, it will be important for the Federal Reserve Board to communicate how it addresses these challenges and opportunities. In this regard, the greater transparency demonstrated by the Federal Reserve during the Chairman's tenure is to be commended. In particular, it has conducted a number of Fed Listens events around the country, including a historic conference held in June, to hear feedback on current policy conduct as well as to better understand the effects of monetary policy at the local level. Not only will these initiatives promote trust in Federal Reserve decision-making, they will provide important information relevant to monetary policy from Americans who do not always get a seat at the table.

We hope to discuss these topics and more with Chairman Powell.

Before I introduce our esteemed witness, I will now yield to Vice Chair Maloney for her opening remarks. Thank you.

PREPARED STATEMENT OF JEROME H. POWELL, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Chairman Lee, Vice Chair Maloney, and members of the Committee, I appreciate the opportunity to testify before you today. Let me start by saying that my colleagues and I strongly support the goals of maximum employment and price stability that Congress has set for monetary policy. We are committed to providing clear explanations about our policies and actions. Congress has given us an important degree of independence so that we can effectively pursue our statutory goals based on facts and objective analysis. We appreciate that our independence brings with it an obligation for transparency and accountability. Today I will discuss the outlook for the economy and monetary policy.

THE ECONOMIC OUTLOOK

The U.S. economy is now in the 11th year of this expansion, and the baseline outlook remains favorable. Gross domestic product increased at an annual pace of 1.9

percent in the third quarter of this year after rising at around a 2.5 percent rate last year and in the first half of this year. The moderate third-quarter reading is partly due to the transitory effect of the United Auto Workers strike at General Motors. But it also reflects weakness in business investment, which is being restrained by sluggish growth abroad and trade developments. These factors have also weighed on exports and manufacturing this year. In contrast, household consumption has continued to rise solidly, supported by a healthy job market, rising incomes, and favorable levels of consumer confidence. And reflecting the decline in mortgage rates since late 2018, residential investment turned up in the third quarter following an extended period of weakness.

The unemployment rate was 3.6 percent in October—near a half-century low. The pace of job gains has eased this year but remains solid; we had expected some slowing after last year's strong pace. At the same time, participation in the labor force by people in their prime working years has been increasing. Ample job opportunities appear to have encouraged many people to join the workforce and others to remain in it. This is a very welcome development.

The improvement in the jobs market in recent years has benefited a wide range of individuals and communities. Indeed, recent wage gains have been strongest for lower-paid workers. People who live and work in low- and middle-income communities tell us that many who have struggled to find work are now getting opportunities to add new and better chapters to their lives. Significant differences, however, persist across different groups of workers and different areas of the country. Unemployment rates for African Americans and Hispanics are still well above the jobless rates for whites and Asians, and the proportion of the people with a job is lower in rural communities.

Inflation continues to run below the Federal Open Market Committee's (FOMC) symmetric 2 percent objective. The total price index for personal consumption expenditures (PCE) increased 1.3 percent over the 12 months ending in September, held down by declines in energy prices. Core PCE inflation, which excludes food and energy prices and tends to be a better indicator of future inflation, was 1.7 percent over the same period.

Looking ahead, my colleagues and I see a sustained expansion of economic activity, a strong labor market, and inflation near our symmetric 2 percent objective as most likely. This favorable baseline partly reflects the policy adjustments that we have made to provide support for the economy. However, noteworthy risks to this outlook remain. In particular, sluggish growth abroad and trade developments have weighed on the economy and pose ongoing risks. Moreover, inflation pressures remain muted, and indicators of longer-term inflation expectations are at the lower end of their historical ranges. Persistent below-target inflation could lead to an unwelcome downward slide in longer-term inflation expectations. We will continue to monitor these developments and assess their implications for U.S. economic activity and inflation.

We also continue to monitor risks to the financial system. Over the past year, the overall level of vulnerabilities facing the financial system has remained at a moderate level. Overall, investor appetite for risk appears to be within a normal range, although it is elevated in some asset classes. Debt loads of businesses are historically high, but the ratio of household borrowing to income is low relative to its precrisis level and has been gradually declining in recent years. The core of the financial sector appears resilient, with leverage low and funding risk limited relative to the levels of recent decades. At the end of this week, we will be releasing our third Financial Stability Report, which shares our detailed assessment of the resilience of the U.S. financial system.

MONETARY POLICY

Over the past year, weakness in global growth, trade developments, and muted inflation pressures have prompted the FOMC to adjust its assessment of the appropriate path of interest rates. Since July, the Committee has lowered the target range for the Federal funds rate by ¾ percentage point. These policy adjustments put the current target range at 1½ to 1¾ percent.

The Committee took these actions to help keep the U.S. economy strong and inflation near our 2 percent objective and to provide some insurance against ongoing risks. As monetary policy operates with a lag, the full effects of these adjustments on economic growth, the job market, and inflation will be realized over time. We see the current stance of monetary policy as likely to remain appropriate as long as incoming information about the economy remains broadly consistent with our outlook of moderate economic growth, a strong labor market, and inflation near our symmetric 2 percent objective.

We will be monitoring the effects of our policy actions, along with other information bearing on the outlook, as we assess the appropriate path of the target range for the Federal funds rate. Of course, if developments emerge that cause a material reassessment of our outlook, we would respond accordingly. Policy is not on a preset course.

The FOMC is committed to ensuring that its policy framework remains well positioned to meet its statutory goals. We believe our existing framework has served us well. Nonetheless, the current low-interest-rate environment may limit the ability of monetary policy to support the economy. We are currently conducting a public review of our monetary policy strategy, tools, and communications—the first of its kind for the Fed. With the U.S. economy operating close to maximum employment and price stability, now is an especially opportune time to conduct such a review. Through our Fed Listens events, we have been hearing a diverse range of perspectives not only from academic experts, but also from representatives of consumer, labor, business, community, and other groups. We will draw on these insights as we assess how best to achieve and maintain maximum employment and price stability. We will continue to report on our discussions in the minutes of our meetings and share our conclusions when we finish the review, likely around the middle of next year.

In a downturn, it would also be important for fiscal policy to support the economy. However, as noted in the Congressional Budget Office's recent long-term budget outlook, the Federal budget is on an unsustainable path, with high and rising debt: Over time, this outlook could restrain fiscal policymakers' willingness or ability to support economic activity during a downturn.[1] In addition, I remain concerned that high and rising Federal debt can, in the longer term, restrain private investment and, thereby, reduce productivity and overall economic growth. Putting the Federal budget on a sustainable path would aid the long-term vigor of the U.S. economy and help ensure that policymakers have the space to use fiscal policy to assist in stabilizing the economy if it weakens.

I will conclude with a few words on the technical implementation of monetary policy. In January, the FOMC made the key decision to continue to implement monetary policy in an ample-reserves regime. In such a regime, we will continue to control the Federal funds rate primarily by setting our administered rates, not through frequent interventions to actively manage the supply of reserves. In the transition to the efficient and effective level of reserves in this regime, we slowed the gradual decline in our balance sheet in May, and stopped it in July. In response to the funding pressures in money markets that emerged in mid-September, we decided to maintain a level of reserves at or above the level that prevailed in early September. To achieve this level of reserves, we announced in mid-October that we would purchase Treasury bills at least into the second quarter of next year and would continue temporary open market operations at least through January. These actions are purely technical measures to support the effective implementation of monetary policy as we continue to learn about the appropriate level of reserves. They do not represent a change in the stance of monetary policy.

Thank you. I would be pleased to take your questions.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY SENATOR COTTON

1. Chairman Powell, I understand that the CECL accounting standard was on the agenda of last week's FSOC meeting. A short time ago, a bipartisan letter from Congress was sent to Secretary Mnuchin, who serves as FSOC's Chairman, called for tasking the Office of Financial Research to study CECL and its likely impact on the economy. Is the FSOC planning to follow up on the recommendation in that letter and give that assignment to the OFR? What additional plans came out of last week's FSOC meeting?

As described in the minutes of the November 2019 FSOC meeting,[2] members of the Financial Stability Oversight Council (FSOC) heard presentations by staff from member agencies describing issues around Current Expected Credit Losses (CECL). In terms of your question about plans corning out of the meeting, the minutes note that "[t]he Chairperson asked the Office of Financial Research to review existing research on CECL and to report back to FSOC with a summary of that literature." The Secretary of the Treasury, as Chair of the FSOC, is best able to answer ques-

[1] Congressional Budget Office (2019), The 2019 Long-Term Budget Outlook (Washington: CBO, June), *https://www.cbo.gov/system/files/2019-06/55331-LTBO-2.pdf*.
[2] *https://home.treasury.gov/system/files/261/November072019-minutes.pdf*.

tions regarding any additional work. The Federal Reserve Board (Board) remains committed to supporting the work undertaken by FSOC.

2. Chairman Powell, a year ago the Fed was approaching finalizing its long-proposed rule creating a new Stress Capital Buffer (SCB). Started under the past Administration, the SCB was designed integrate the forward-looking stress test results with the Board's non-stress capital requirements. The result would produce capital requirements for large banks that are firm-specific and risk-sensitive. Unfortunately, that effort was delayed and missed being applied for the 2019 evaluation year. Will the SCB be finalized this Fall so that it can be applied for 2020?

The Board continues to consider the stress capital buffer proposal and to look for ways to improve the capital framework that maintains the resilience of the financial system, while increasing efficiency and transparency. I currently do not have a further update regarding rule finalization and implementation.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY SENATOR CRUZ

1. During your confirmation hearing on November 28, 2017, before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, you showed a willingness to share your views on fiscal policy, as Federal Reserve Chairmen before you have previously done. For example, Senator Van Hollen asked if you agreed with former Chairman Yellen's statement that: "current spending and taxation decisions will lead to an unsustainable debt situation with rising interest rates and declining investment in the United States that will further harm productivity, growth, and living standards." You responded by discussing your views on fiscal policy and agreed with Chairman Yellen's statement.

Your willingness to discuss spending and taxation policies during your confirmation hearing appears to stand in stark contrast with your unwillingness to answer similar questions when testifying before the United States Joint Economic Committee on November 13, 2019. During that hearing, I expressed my concern that certain types of Federal policies (i.e., tax policies) could discourage investment and slow down economic growth. I then asked you to opine on whether a massive tax increase would be good or bad for the economy. I specifically asked: "Would a massive tax increase be good or bad for the economy? In your judgement, would such policies decrease investment and slow down economic growth?"

Given your willingness to respond to taxation questions during your confirmation hearing, please respond to the following: Would a massive tax increase be good or bad for the economy? In your judgement, would such policies decrease investment and slow down economic growth?

2. In your opinion, would higher taxes on small-and medium-sized businesses potentially lower their disposable income?

3. If businesses have less disposable income, would they potentially reduce their investment in capital? If so, what impact would that have on the U.S. economy?

4. If Congress decided to levy an annual tax on taxpayers' entire net worth—what some are calling a "wealth tax"—what impact might that have on economic behavior?

5. Would a wealth tax reduce national saving, and if so, what ripple effects would that have across the economy, especially for working-class Americans?

6. The Tax Cuts and Jobs Act allowed for full and immediate expensing for most types of business investment. If Congress were to reverse this change and instead require firms to deduct the cost of an investment from their taxes over the life of the asset acquired, what would this do to business investment?

7. What effect does a decrease in business investment have on jobs and wages, particularly for middle- and working-class Americans?

8. Prior to the Tax Cuts and Jobs Act, the United States had the highest corporate tax rate amongst OECD nations. The 2017 tax reform law lowered the corporate tax rate in the United States to 21%, making our rate more competitive with other OECD countries. If the United States were to return its corporate rate to 35%, what consequences would that have on business investment in the United States and economic growth generally?

9. If Congress were to increase the corporate tax rate, would the burden of that tax fall only to wealthy corporations along with the nation's millionaires and billionaires, or would it fall on the shoulders of workers, shareholders, and consumers as well? To what extent would it impact various groups (e.g., corporations, shareholders, workers, consumers, etc.)?

10. During your confirmation hearing, Senator Tillis asked you whether reducing the tax and regulatory burden on certain businesses would lead to more or less investment in productivity. You responded: "I think there clearly are ways in the tax code to support different kinds of activity, and certainly, investment is one of these." What are some of the ways in which the tax code supports investment?

11. What are some of the ways in which the tax code now better supports business investment than it did prior to the enactment of the Tax Cuts and Jobs Act? Please be specific in terms of which changes to the code supported investment.

12. On December 13, 2017, in response to Congress passing the Tax Cuts and Jobs Act, former Chairman Janet Yellen stated, "My colleagues and I are in line with the general expectation among most economists that the type of tax changes that are likely to be enacted would tend to provide some modest lift to GDP growth in the coming years." Again, with the benefit of hindsight, has Chairman Yellen's prediction borne itself out over the last two years since passage of the Tax Cuts and Jobs Act? Do you agree that the tax changes have provided a lift to GDP?

13. On April 2, 2008, Chairman Ben Bernanke testified before the United States Joint Economic Committee. During the hearing, Representative Kevin Brady asked Chairman Bernanke if it was a bad time for Congress to consider significant new tax increases while the economy was experiencing job uncertainty, low consumer confidence, and a loss of net household worth. In response, Chairman Bernanke stated: "in the short term certainly I think new tax increases would reduce disposable income and consumption, and I think that would be a concern." Do you agree with Chairman Bernanke's statement? Please explain, and if you do agree, would you say the statement is still true today?

14. On November 8, 2007, Chairman Bernanke testified before the United States Joint Economic Committee. During the hearing Senator Brownback asked Chairman Bernanke if raising taxes would be harmful to long-term economic growth in the United States. In response, Chairman Bernanke stated: "A large increase in net taxes would tend to be a drag on consumer spending and on the economy through a number of different channels, I should say. That would be an issue, I think, if that were to be the case, given what we expect to be a slower growth economy for the next couple of quarters." Do you agree with Bernanke's statement? In your view, is Chairman Bernanke's statement that "a large increase in net taxes would tend to be a drag on consumer spending and on the economy" still true today? Please explain.

15. During his June 15, 2004, confirmation hearing before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, former Chairman Alan Greenspan stated: "I have always been strongly supportive of the elimination of the double taxation of dividends largely because I have always considered it a type of tax which probably impeded capital expansion and economic growth as a consequence. So, I was very strongly supportive and remained supportive of those types of tax cuts, including marginal tax-rate cuts." Do you agree with Chairman Greenspan's statement? Please explain.

16. Former Chairman Greenspan also stated during his 2004 confirmation hearing that for "ordinary workers," "a significant part of the increase in disposable income was the result of tax cuts." Do you agree with Chairman Greenspan's statement? Please explain.

17. During an interview with CNBC's "Squawk on the Street" on January 7, 2019, former Chairman Greenspan stated that the 2017 Tax Cuts and Jobs Act: "was an excellent tax cut." Do you agree with Chairman Greenspan's statement? Please explain.

18. From the first quarter of 2015 to the third quarter of 2016, net domestic investment declined to 437 billion. In the past three years, however, the nation has experienced unprecedented growth.

Earlier this year the unemployment rate fell to the lowest level since 1968. AfricanAmerican unemployment is the lowest ever recorded at 5.4%, current poverty levels for African Americans and Hispanics are the lowest

ever recorded, and the number of individuals on food stamps has dropped dramatically.

From August 2018 to August 2019, there were 1.7 million fewer Americans on food stamps. Additionally, approximately 243,000 Texans came off the supplemental nutrition assistance program, and in the first quarter of 2019, net domestic investment peaked at over $676 billion.

Chairman Powell, do you agree that our country experienced a slow recovery from the recession through 2016? If yes, what has been the biggest driver of the economic growth that our country has experienced since 2016?

Fiscal policy is properly the purview of Congress and the Administration, and therefore, it would not be appropriate for the Federal Reserve to comment on the specifics of fiscal policy proposals. In that spirit, I will highlight some important general considerations when assessing the effects of fiscal policy on the economy that relate to the questions you have posed.

As you noted, I have often stated that current fiscal policy is on an unsustainable path with rising deficits and debt as a share of gross domestic product (GDP). A large and growing Federal debt, relative to the size of the economy, over coming decades would have negative effects on the economy. In particular, it would tend to reduce national saving, all else equal, and put upward pressure on longer-term interest rates, raising borrowing costs for households and businesses. Those effects would probably restrain private investment, which in turn, would reduce productivity and overall economic growth. Consequently, standards of living would improve more slowly.

As I wrote in my testimony, putting fiscal policy on a sustainable path over time would also help ensure that policymakers have the space to use fiscal policy to assist in stabilizing the economy if it weakens in the future. Despite the overall need for deficit reduction, the current low-interest-rate environment means that, in addition to monetary policy, it would be important for fiscal policy to help support the economy in a downturn.

Fiscal policy decisions can affect the productive capacity of the economy through additional channels besides the national saving channel described above. Notably, effective marginal tax rates can alter incentives to save, invest, and work, and spending on infrastructure and other public investments can influence the productive capacity of the economy as well.

19. Chairman Powell, I understand that you are on the Financial Stability Oversight Council (FSOC) and that the current expected credit loss (CECL) accounting standard for loan losses was on the agenda of last week's FSOC meeting. On October 18, 2019, a bipartisan letter from Congress was sent to Secretary Mnuchin, who serves as FSOC's Chairman. The letter called for tasking the Office of Financial Research (OFR) to study CECL and its likely impact on the economy. Is the FSOC planning to follow up on the recommendation in that letter and give that assignment to the OFR? What additional plans came out of last week's FSOC meeting?

As described in the minutes of the November 2019 meeting,[3] my Financial Stability Oversight Council (FSOC) colleagues and I heard presentations by staff from banking agencies describing issues around current expected credit loss (CECL). After the presentation, the Chairperson asked the Office of Financial Research to review existing research on CECL and report back to the FSOC with a summary of that literature. The Federal Reserve remains committed to supporting any work undertaken by the FSOC.

20. Chairman Powell, a year ago the Federal Reserve was close to finalizing its long-proposed rule creating a new Stress Capital Buffer (SCB). Started under the past Administration, the SCB was designed to integrate the forward-looking stress test results with the Fed's non-stress capital requirements. The result would produce capital requirements for large banks that are firm-specific and risk-sensitive. Unfortunately, that effort was delayed and missed being applied for the 2019 evaluation year. Here we are, a year later, quickly approaching 2020. Can we get the SCB finalized this year so that it can be applied for 2020?

The Federal Reserve Board continues to consider the stress capital buffer proposal and to look for ways to improve the capital framework that maintains the resilience of the financial system, while increasing efficiency and transparency. I currently do not have any update regarding rule finalization and implementation.

[3] See *https://home.treasury.gov/system/files/261INovember072019-minutes.pdf*.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY SENATOR HASSAN

1. A recent study by Xavier Jaravel that was highlighted by the Center on Poverty and Social Policy at Columbia University[4] found that, from 2004 to 2015, inflation for retail products was, on average, 0.44 percentage points higher for the bottom income quintile relative to the top income quintile. When adjusting inflation measures to account for this "inflation inequality," the number of people in poverty in 2018 was about 8 percent larger than under the official inflation measure. This translates to roughly 3.2 million more households classified as living in poverty than under official measures. In pursuing its dual mandate, how does the Federal Reserve account for inflation inequality in setting policies such as target interest rates—that are aimed at managing inflation? Further, does the Fed have plans to research inflation inequality and its implications for monetary policy?

The research you cite finds evidence that inflation over the period studied was higher for low-income groups than for those with higher incomes. The paper argues that the differences may have been driven by product innovation that is targeted to products that relatively affluent people purchase. This research is interesting, and the issues it raises are clearly relevant for understanding changes in the standard of living for different income groups. Some related research has been conducted by individual staff at the Federal Reserve,[5] and it would indeed be useful to see more such work being done.

Knowing the implications of this work for monetary policy is challenging, however. My colleagues and I fully recognize that inflation is not the same for everyone. Different people purchase different things from different places, and the national price indexes are by necessity averages across the population. At the same time, monetary policy affects inflation broadly, and we interpret our price stability mandate to refer to overall inflation. Moreover, the study does not indicate that the observed inflation differentials across income groups were somehow related either to the overall level of inflation or to the state of the business cycle. Accordingly, it is not clear how the results might bear on the Federal Reserve's decisions regarding either the inflation or employment portions of our congressional mandate.

Economic policy should strive to achieve solid economic growth and rising standards of living not just on average but throughout the population. The policies to support these objectives are mostly outside the scope of monetary policy, but I believe the Federal Reserve can contribute by pursuing our mandate of maximum employment and price stability.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY SENATOR KLOBUCHAR

A third of non-retirees have zero retirement savings, and a well-known Federal Reserve study found that four in 10 adults do not have enough cash to pay for a $400 emergency expense.

- **How would enhanced financial security for older Americans help promote economic growth?**
- **The Federal Reserve's dual mandate requires careful consideration of the effect of monetary policy on both inflation and unemployment. We know that keeping the unemployment rate low is critical for working Americans while inflation can be particularly harmful for seniors who rely on a fixed income. Could policies that significantly increase retirement savings help mitigate the most painful effects of unforeseen inflation?**

In general, older Americans have more wealth than younger Americans. According to the Federal Reserve's Distributional Financial Accounts, households with heads older than age 55 hold almost 75 percent of overall wealth. However, these overall

[4] Center on Poverty and Social Policy, Columbia University. 2019. "The Costs of being Poor: Inflation Inequality Leads to Three Million More People in Poverty." *https://groundworkcollaborative.org/wp-content/uploads/2019/11/The-Costs-of-BeingPoor-Groundwork-Collaborative.pdf.*

[5] Kaplan, G. and S. Schulhofer-Wohl. 2017. "Inflation at the Household Level." Journal of Monetary Economics, vol. 91, November, pp. 19–38, *https://doi.org/10.1016/j.jmoneco.2017.08.002*.

numbers mask major differences across older households in their financial resilience. For example, data from the Federal Reserve's Survey of Consumer Finances suggests that only about half of older households have enough money easily accessible to cover three months of their expenses.

Financial resilience is a particular concern for older households. It is likely harder for these households to address financial setbacks by working more hours or re-entering the labor force. Instead, in difficult times, these households may be forced to cut their spending significantly. These sudden drops in spending can amplify the effects of recessions. Enhanced financial security would reduce this drag on economic growth. Unforeseen inflation is among the financial setbacks that might occur to older households, and its effects would be less if households have greater retirement savings.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY REPRESENTATIVE BEATTY

1. According to the Federal Reserve of St. Louis, auto loan debt is at a record $1.2 trillion, up about a half a billion dollars over the last decade, meaning it is up roughly 63% over the last decade. We are also seeing the average length of an auto loan increase significantly with about a third of auto loans in the first half of 2019 for new vehicles with terms longer than 72 months—up from just 10% a decade ago.

What does the Federal Reserve make of this recent uptrend of debt in the auto market in the last decade and the lengthening of loan terms out more than 72 months? Does this say anything about the strength of the consumer in this economy? This does not seem to be sustainable, does it?

Auto loan debt is at a record of near $1.2 trillion dollars as of 2019:Q3, about $460 billion higher in nominal terms than a decade ago—when auto loan balances were at the nadir in the midst of the Great Recession. That said, auto loan growth has been outpaced by nominal GDP growth over the past fifteen years. Among other factors, we expect auto loan nominal balances to continue to grow with the economy and inflation.

Terms of auto loans indeed have increased noticeably during the past decade. However, in a longer perspective, the maturity extension is comparable to what occurred over the past several decades. For example, the Federal Reserve Board's (Board) G.20 Finance Companies Statistical Release indicates that the average term of auto loans originated by financing subsidiaries of auto makers (captive finance companies) increased from 35 months in the early 1970s to 62 months in the early 2010s, a pace of about 6 months per decade. The upward trend in auto loan terms reflects, in part, the improvement of vehicle durability.

Implications of longer auto loan terms on borrowers are mixed. On the one hand, other factors held constant, longer loan terms reduce monthly payments, which makes vehicles and loans more affordable for liquidity-constrained car buyers. On the other hand, increased auto loan terms may exacerbate consumers' vulnerabilities. For example, longer auto loan terms expose consumers to future income and expenditure shocks for a longer period, increasing the probability of default. Additionally, extended loan terms reduce equity accumulation and push up loan-to-value ratios. Currently, overall auto loan delinquencies remain stable at moderate levels.

2. At a recent meeting of the Financial Stability Oversight Council (FSOC), members of FSOC heard a presentation from staff of the Federal Reserve, Federal Housing Finance Agency, and Conference of State Bank Supervisors regarding the growth of non-bank mortgage origination and servicing and potential related risks. One of these risks related to the reliance of many nonbank lenders on short-run financing from banks that could dry up in a downturn. These non-bank lenders have increased their share of the mortgage lending market since the Financial Crisis of 2008, especially as it relates to FHA loans, which is where many low-income and minority borrowers receive financing to purchase a home.

Can you tell this Committee what you thought of that presentation? Is FSOC or the Federal Reserve taking any actions to address this concern?

I share your concern about the vulnerabilities associated with the growth of nonbank mortgage originators and servicers. In its annual report, which was released on December 4, 2019, the Financial Stability Oversight Council (FSOC) highlighted these risks and recommended that Federal and state regulators continue to coordinate closely to collect data, identify risks, and strengthen oversight of nonbank companies involved in the origination and servicing of residential mortgages. The Board does not have any direct regulatory authority over these nonbank institutions, but we share our technical expertise as appropriate with our partner agencies and remain committed to supporting work undertaken by FSOC. The Secretary of the Treasury, as Chair of the FSOC, is best able to answer questions regarding future actions.

3. As you know, the Federal Reserve is currently developing capital requirements for insurance companies that own depository institutions, otherwise known as insurance savings and loan holding companies. In the notice of proposed rulemaking issued in September, the Board indicated that your intention under your proposed requirements, no company subject to the requirements would have to raise capital above what they hold today under state law. This also reflects the robust nature of existing state capital requirements.

If you found through further analysis and comment that healthy insurers that are well capitalized under state law would have to significantly increase capital to meet Board requirements and continue their current business operations, would you take that into account when finalizing your rule?

The Board currently supervises eight institutions that are significantly engaged in insurance activities. These eight institutions would therefore be subject to the proposed capital requirement. In addition to publication of the Notice of Proposed Rulemaking (NPR) for comment, the Board conducted a Quantitative Impact Assessment (QIS) of the Building Block Approach (BBA) with supervised firms. The responses to the NPR as well as the feedback from supervised forums on the QIS and the data that will be received through the QIS will provide us with the ability to ensure appropriate calibration of the BBA capital requirement.

RESPONSE FROM HON. JEROME H. POWELL TO QUESTION FOR THE RECORD SUBMITTED BY REPRESENTATIVE HECK

1. Five years ago, as unemployment crossed below 6%, the first members of the FOMC said "full employment" was at hand. In the years since, as unemployment dropped below 5% and below 4%, more and more members of the FOMC said the Fed had reached its goal. We know now that those estimates of full employment were far too early, as you've acknowledged this in previous Congressional hearings. How is the Committee reckoning with this? Is there an open discussion about what caused those premature estimates or how to better measure of full employment in the future?

A great deal of uncertainty surrounds estimates of the level of full employment. This uncertainty stems from the fact that full employment is not observable. Instead, we must infer it from the behavior of observable variables. But these observable variables are influenced by many other factors, not just full employment, making the estimation of full employment extremely challenging. Adding to the challenge is the fact that the structure of the economy is constantly changing. For example, the Phillips curve relationship between inflation and the distance to full employment has weakened over time, making estimates of full employment even more uncertain.

The Federal Reserve has responded to this uncertainty by gathering as much information as possible on full employment, including, but not limited to, extensive economic data on the labor market, inflation, and many other aspects of the economy, as well as estimates and forecasts from state-of-the-art statistical and structural models of the economy. We also consult research outside of the Federal Reserve System and benefit from conversations with economists, businesses, non-profits and individuals at events such as our "Fed Listens" series. In addition, each member of the Federal Open Market Committee (FOMC) uses their own experience and expertise to interpret the relevant economic data and analysis. The exposure to these different perspectives benefits all FOMC members.

We also regularly examine our forecast errors of important macro variables, such as inflation and unemployment, to see what we got wrong and why. We then use this information to inform our estimate of full employment and our current forecasts. Because the structure of the economy is constantly changing in ways that are difficult to recognize and understand in real time, we must guard against anchoring our understanding of the economy too much in the past. Finally, realizing that we will not always be right about full employment and other structural aspects of the economy, we use alternative simulations of economic activity to examine what the consequences for activity and employment would be if we are wrong. We then take these risks into account in deciding current policy.

2. Can you explain how you measure full employment? In the economic projections, the FOMC members estimate that the sustainable unemployment rate is 4.0–4.3%, which suggests that, at our current level of 3.6%, we're well beyond full employment, but other measures like monthly job gains show there's still slack in the labor market. What should regular citizens and policymakers look at to gauge how close the FOMC believes we are to meeting the full-employment mandate?

As noted in the previous response, the level of full, or maximum, employment is not observable. Accordingly, estimates of the level of full employment and assessments of labor market slack are subject to considerable uncertainty and re-evaluation. FOMC members consider a range of indicators when evaluating the strength of the labor market, including direct measures of labor market utilization such as the unemployment rate, the labor force participation rate, and the share of employed individuals working part time but preferring full-time employment. Members also consider the pace of job gains, indicators of how hard or easy it is for people to find jobs and for employers to find qualified workers, how quickly wages and broader measures of hourly compensation are increasing, and the inflation rate for the personal consumption expenditure (PCE) price index (as well as other measures of price inflation).

The unemployment rate in January 2020 was 3.6 percent, and since December 2017 it has remained at or below 4.1 percent—the median of participants' estimates of the sustainable unemployment rate in the December 2019 Summary of Economic Projections. As you noted, on the basis of the unemployment rate alone, it would appear that the labor market is operating above its full-employment level. However, both PCE price inflation and core PCE inflation, which excludes the volatile food and energy components, have remained below 2 percent—the rate of price inflation that the FOMC judges to be most consistent with achievement of both parts of the dual mandate—and the pace of wage gains has remained modest. Indeed, the coincidence of inflation running below 2 percent and a low and declining unemployment rate has led FOMC participants to revise down their estimates of the long-run sustainable unemployment rate, with the median estimate declining by 0.5 percentage point since the December 2017 FOMC meeting.

Other indicators of labor market activity seem to support the view that we have not yet reached full employment and that the unemployment rate may be overstating the strength in the labor market. In particular, the continuing solid pace of job gains and the sustained increases in the labor force participation rate for 25 to 54 year olds both suggest that there is further room for employment to increase.

It is not unusual for these various indicators to be sending divergent signals about labor market slack, so congressional policymakers and the public should look at a variety of measures of labor market activity, as well as for signs of a pickup in the pace of wage gains and PCE inflation rising toward 2 percent, to get a broad sense of how close FOMC members think we are to full employment.

FOMC participants convey their assessments of the maximum level of employment and discuss the information they use to inform those assessments in various public communications, including speeches, testimony, post-meeting statements, and FOMC meeting minutes. The Board's biannual Monetary Policy Report to Congress also includes a detailed analysis of the labor market.

3. As the Fed conducts its framework review, most of the focus has been on the price stability mandate. For example, you've discussed switching to average inflation targeting. Are there framework changes being considered with respect to the full-employment mandate? And if so, what are those changes?

The Federal Reserve conducts monetary policy to pursue maximum employment and price stability. Unlike the inflation rate, the maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market. These factors cannot be directly observed and may change over time. Consequently, the FOMC's policy decisions are informed by assessments of the maximum level of employment based on a wide range of data, recognizing that such assessments are necessarily uncertain and subject to revision. In recent years, declines in the unemployment rate have not been associated with a significant acceleration in wages or a pickup in overall inflation, suggesting that the labor market was not as tight as would have been suggested by earlier estimates of the so-called natural rate of unemployment. Accordingly, many forecasters have revised down estimates of the natural rate of unemployment in recent years. FOMC participants have also revised down their individual estimates of the unemployment rate that is expected to prevail in the longer run.

The Federal Reserve is taking a broad and open-minded look at the monetary policy strategy, tools, and communications practices it uses to pursue its goals of maximum employment and price stability. While this review is broad in scope, it takes as given the Federal Reserve's congressionally assigned dual mandate goals, including maximum employment.

The review includes a series of "Fed Listens" events around the country to hear perspectives from representatives of business and industry, labor leaders, community and economic development officials, academics, nonprofit organizations, and others. The feedback from these events has underscored the positive implications of strong labor markets and high rates of employment for various communities.

4. Business investment has been slowing for six straight quarters despite the passage of the tax cut in 2017, the economy getting closer to full employment, and interest rates remaining very low. How bas the experience of weak business investment in the aftermath of the tax changes been reflected in updates to the Federal Reserve's economic forecasting model? How do you expect business investment to trend going forward?

The U.S. economy is now in the 11th year of this expansion, with gross domestic product on pace for a moderate gain for 2019 as a whole. Household consumption remains a bright spot, supported by a healthy job market, rising incomes, and favorable levels of consumer confidence. Reflecting the decline in mortgage rates since late 2018, residential investment turned up in the third qualifier following an extended period of weakness.

In contrast to the continued strength in household spending, investment spending by businesses decelerated sharply in 2019, following strong gains in 2018. The softness in business investment has been widespread, with all three major sub-sectors—equipment, structures, and intellectual property products—making sizable contributions to the deceleration. Sluggish growth abroad, trade developments, and heightened uncertainty all appear to be weighing on investment. In addition, the suspension of deliveries and production at a major commercial aircraft manufacturer has reduced transportation equipment investment, and sliding energy prices have contributed to ongoing declines in drilling and mining investment that began in mid-2018. Investment in non-drilling structures has also declined, with commercial construction particularly shopping malls—accounting for much of the decrease. If it were sustained, the recent diminished pace of business investment could meaningfully reduce the contribution of capital deepening (capital services per trend employee hour) to the growth rate of trend labor productivity and thus to the longer-run growth rate of the U.S. economy as a whole.

Looking ahead, business output growth and the cost of capital are both fundamental determinants of business investment. As such, the sustained expansion in economic growth that we anticipate, which partly reflects the policy adjustments we have made this past year, should encourage a sustained pickup in business investment. Moreover, corporate financing conditions as well as financing conditions for small businesses have remained generally accommodative on the whole. At the same time, while some of the uncertainties around trade have diminished recently, uncertainty over global economic prospects pose ongoing risks. In the longer term, another risk is that high and rising Federal debt could restrain business investment and thereby reduce productivity and overall economic growth.

Forward-looking indicators of business spending, such as orders of nondefense capital goods, surveys of business conditions and sentiment, capital spending plans, and profit expectations from industry analysts, all appear to have stabilized in recent months after having deteriorated markedly earlier in 2019. These indicators are consistent with continued soft investment growth in the months ahead, but likely not material declines.

5. As we have discussed before, I believe that reaching full employment will spur business investment—rising wages and difficulty hiring will spur investment in labor-saving equipment. I believe the economy as a whole is still short of full employment, but there are likely some industries where all the labor market slack has been taken up. Are we seeing increased business investment in those industries?

In principle, when the economy is nearing full employment and labor markets tighten, the incentive for most firms to invest in labor-saving technologies should rise. Such investment should in turn raise the contribution of capital deepening (i.e., the amount of capital services per employee) to the growth rate of trend labor productivity and lift the longer-run growth rate of the U.S. economy as a whole. Higher trend productivity and additional labor market strengthening should both support stronger growth in hourly compensation.

In practice, it is difficult to discern a clear link between labor market slack and business investment in the available data. A simple cross correlation between industry-level equipment investment and industry-level unemployment rates in the past few years shows essentially no relationship. Investment in some industries with low unemployment rates, like utilities and healthcare, does appear to have accelerated. But in other low-unemployment industries, like finance and insurance, investment does not appear to have accelerated.

That said, good quality industry-level investment data is only available with a considerable lag and tends to be quite volatile from year-to-year. Thus, it may take several more years for a clearer pattern to emerge in the data. More generally, there are many other factors besides labor market slack that affect investment, including economic growth, profit expectations, financing conditions, tax policy, and uncertainty. Therefore, isolating a statistically significant relationship between labor market slack and business investment may continue to prove elusive.

6. Business investment is the key to productivity growth which in turn is the key to sustained high wage growth. What do you believe is the single most important policy adjustment we could make to spur business investment?

Despite strong labor market conditions, including an unemployment rate near half-century lows, available indicators generally suggest that hourly labor compensation growth remains moderate by historical standards despite picking up some of late. Moderate compensation gains likely reflect the offsetting influences of a strengthening labor market and productivity growth that have been weak through much of the expansion. A sustained pickup in productivity, as well as additional labor market strengthening, would support stronger gains in hourly compensation.

Considerable debate remains about the reasons for the slowdown in productivity growth, but the weakness may be partly attributable to the sharp pullback in business investment during the most recent recession and the relatively slow recovery that followed. All else equal, a pickup in net investment-that is, investment in excess of what is needed to replace depreciated capital should raise the contribution of capital deepening (i.e., the amount of capital services per employee) to the growth rate of trend labor productivity.

Congress has instructed the Federal Reserve to promote maximum employment and stable prices. Generally speaking, all policies that boost the growth potential of the economy should help to spur business investment on a sustainable basis. In the longer term, it would be important to put the Federal budget on a sustainable path, as high and rising Federal debt could restrain private investment, thereby reducing productivity and overall economic growth. What types of policies are most appropriate to promote business investment are for Congress and the Administration to decide.

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